

ARBORIST REPORT-
Evaluation and Recommendations for Two Ponderosa Pine
Trees at:

City of Capitola
Wharf Road & Cliff Drive
5/31/2022

Prepared for:
City of Capitola – Public Works
420 Capitola Avenue
Capitola, CA 95010

Prepared by:



ISA Certified Arborist WE0681A
ISA Tree Risk Assessment Qualification

Table of Contents

Background	1
Summary.....	1
OBSERVATIONS	1-8
DISCUSSION	9
RECOMMENDATIONS	10

Attachments:

- Assumptions and Limiting Conditions

Background

Two ponderosa pine are causing damage to sidewalk, curb and gutter infrastructure at Wharf Road and Cliff Drive, Capitola. I was contacted by Mr. Ed Morrison, Public Works Inspector, at the City of Capitola, to give a general evaluation of the trees, address any areas of concern, and provide management recommendations.

On 5/23/2022 I met with Mr. Morrison. He showed me the damage being caused by the two pines. Following our meeting I evaluated the health and structure of the trees.

The trees I inspected grow in a highly visible corridor at the western approach to Capitola Village. The maturing pines provide screening and are a buffer between the existing building and Cliff Drive.

Summary

Two maturing Ponderosa pines are causing damage to infrastructure including, sidewalk, curb, gutter, and street. The damage is due to a small planting area size, limited rooting area, and the growth pattern of the tree's roots.

Due to planter size constraints, root growth habit, and lack of suitable long-term mitigation options, I am recommending removal of one of the two pines.

An assessment of the trees current condition, and the reasons for my recommendation are discussed in more detail in the report that follows.

Observations

On 5/23/2022, I met with Mr. Morrison at location of the Ponderosa pines. He showed me the damage to sidewalk, curb and gutter being caused by the two pines, their general condition, and possible remedies to the areas of concern. After our meeting, I performed a thorough inspection of the two pines.

Tree #	Species	Diameter	Location
T1	Canary Island Pine (<i>Pinus canariensis</i>)	24"	Wharf Rd. & Cliff Dr.
T2	Canary Island Pine "	28"	Wharf Rd. & Cliff Dr.

Pines T1 and T2 grow in a sidewalk cutout along Cliff Drive, (Image #1)



Image #1 – Trees T1 and T2 Canary Island Pine, grow in sidewalk cutout along Cliff Drive. Pines as seen from Wharf Road approach to Capitola Village.

The pines are a visual buffer to the adjacent building.

The two trees are planted about 10-feet apart and their canopies overlap, (Image #2).



Image #2 – Trees T1 & T2 seen from corner of Cliff Drive & Wharf Road.

Both pines are in fair condition but have multiple structural defects including self-corrected leans, co-dominant trunks, and multiple leaders with the same attachment point. However, none of the structural defects are significant, and do not markedly increase the chances of failure.

Using a mallet, I performed a sounding on the tree trunks listening for hollow sounds. None were detected.

Both pines have some needle browning of older needles, (Image #3). Browning of older needles is normal for pine trees.



Image #3 – Trees T1 (on left), and T2 Canary Island pine. Both trees have some needle browning throughout the canopy. Note lack of branching development on right side of tree T1.

The health of both trees is fair. New needle bundle growth is good, and the trees appear vigorous. Foliar canopy density is normal for the species. There is some deadwood in both trees.

The branching structure of tree T1 is limited on the side adjacent to tree T2.

The two trees grow in a sidewalk cutout, (Image #4).



Image #4 – Trees T1 and T2 Ponderosa pine. The rooting area for tree T1 is larger than the rooting area for tree T2.

The rooting area for tree T1 is larger than for T2. Both trees are causing damage to the sidewalk, curb/gutter, and asphalt.

Shallow surface rooting by tree T2 has caused curb and gutter to lift, (Image #5).



Image #5 – Curb and gutter damage from tree T2., (circled). The asphalt connected to the gutter is also showing damage.

In addition to the curb, sidewalk damage was observed, (Image #6).



Image #6 – Tree T2 sidewalk damage and lifted curb.

Shallow surface rooting from tree T1 is causing sidewalk damage, (Image #7).



Image #7 – Sidewalk damage from tree T1. Note corner of sidewalk has been repaired

Discussion

The two maturing pines are in fair condition. Both have structural defects that are not significant and do not pose a significant risk to targets below. The targets include the adjacent buildings, vehicles, pedestrians, and bicyclists. I rate the current risk these trees represent as low. Based on current conditions, the tree part most likely to fail are one of the smaller diameter (1-3"), secondary branches. However, as trees grow, conditions change and therefore risk can change. For mature trees with targets, I recommend periodic risk assessments.

Both trees could use minor *crown reduction* pruning to shorten over extended limbs, and *crown cleaning*, to remove deadwood.

Because the planting area for the trees is limited, roots have grown beyond the planting area. Concrete and asphalt damage has occurred due to shallow surface rooting and root diameter expansion.

To reduce infrastructure damage several mitigation methods can be considered:

1. Root pruning and the installation of root barriers.
2. Reinforcing of concrete surfaces by doweling together concrete sections.
3. Enlargement of planter area, (if site constraints allow).
4. Tree Removal

Tree T2 is causing the most impact to surrounding sidewalk and curb and gutter. This is due to the small planting area size, its limited rooting area, and the growth pattern of the tree's roots, (Images #5 & #6).

It may be possible to prune roots and make infrastructure repairs for tree T2, but because of the size of this tree relative to the planting area, and its close proximity to the curb and sidewalk, the root problem is likely to re-occur, even with root pruning, root barriers and concrete repairs.

Because of the issues created by the tree that will likely continue even with mitigation, my recommendation is to remove this tree.

Tree T1 has a much larger rooting area than tree T2 and mitigation methods to reduce root damage impacts are likely to hold for a much longer period. Therefore, I believe this tree should be retained since root problems can be kept at a manageable level.

Tree T1 has not developed much branching structure on the side adjacent to tree T2 due to shading from tree T2. If tree T2 is removed, tree T1 will develop a branching structure on this side. Over time, the new branching structure and canopy will "fill in" the void left by tree T2. The buffer and screening effect of the tree T1 canopy, will eventually equal, (or nearly equal), the current canopy spread both trees.

Recommendations

1. Obtain all necessary permits prior to removing or significantly altering any trees on site.
2. Remove Canary Island pine tree T2.
3. Perform crown reduction and crown cleaning pruning to tree T1.
4. If infrastructure repairs are made to sidewalk curb and gutter, core and dowel into existing sidewalk sections and curb. Install multiple lengths of rebar in an overlapping pattern. Repour new sidewalk as a single monolithic pour to minimize the chances of future root uplifting.

Respectfully submitted,

Kurt Fouts

Kurt Fouts ISA Certified Arborist WE0681A
ISA Tree Risk Assessment Qualification



ASSUMPTIONS AND LIMITING CONDITIONS

1. Any legal description provided by the appraiser/consultant is assumed to be correct. No responsibility is assumed for matters legal in character nor is any opinion rendered as the quality of any title.
2. The appraiser/consultant can neither guarantee nor be responsible for accuracy of information provided by others.
3. The appraiser/consultant shall not be required to give testimony or to attend court by reason of this appraisal unless subsequent written arrangements are made, including payment of an additional fee for services.
4. Loss or removal of any part of this report invalidates the entire appraisal/evaluation.
5. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person(s) to whom it is addressed without written consent of this appraiser/consultant.
6. This report and the values expressed herein represent the opinion of the appraiser/consultant, and the appraiser/consultant's fee is in no way contingent upon the reporting of a specified value nor upon any finding to be reported.
7. Sketches. Diagrams. Graphs. Photos. Etc., in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys.
8. This report has been made in conformity with acceptable appraisal/evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
9. When applying any pesticide, fungicide, or herbicide, always follow label instructions.
10. No tree described in this report was climbed, unless otherwise stated. We cannot take responsibility for any defects which could only have been discovered by climbing. A full root collar inspection, consisting of excavating around the tree to uncover the root collar and major buttress roots, was not performed, unless otherwise stated. We cannot take responsibility for any root defects which could only have been discovered by such an inspection.

CONSULTING ARBORIST DISCLOSURE STATEMENT

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

